

# **Cooper Road and Commerce Avenue**

Water Quality Assurance Revolving Fund (WQARF) Site Gilbert, Arizona

# **Community Involvement Plan**



Cooper Road and Commerce Avenue WQARF Site Monitoring Well Installation

## **Table of Contents**

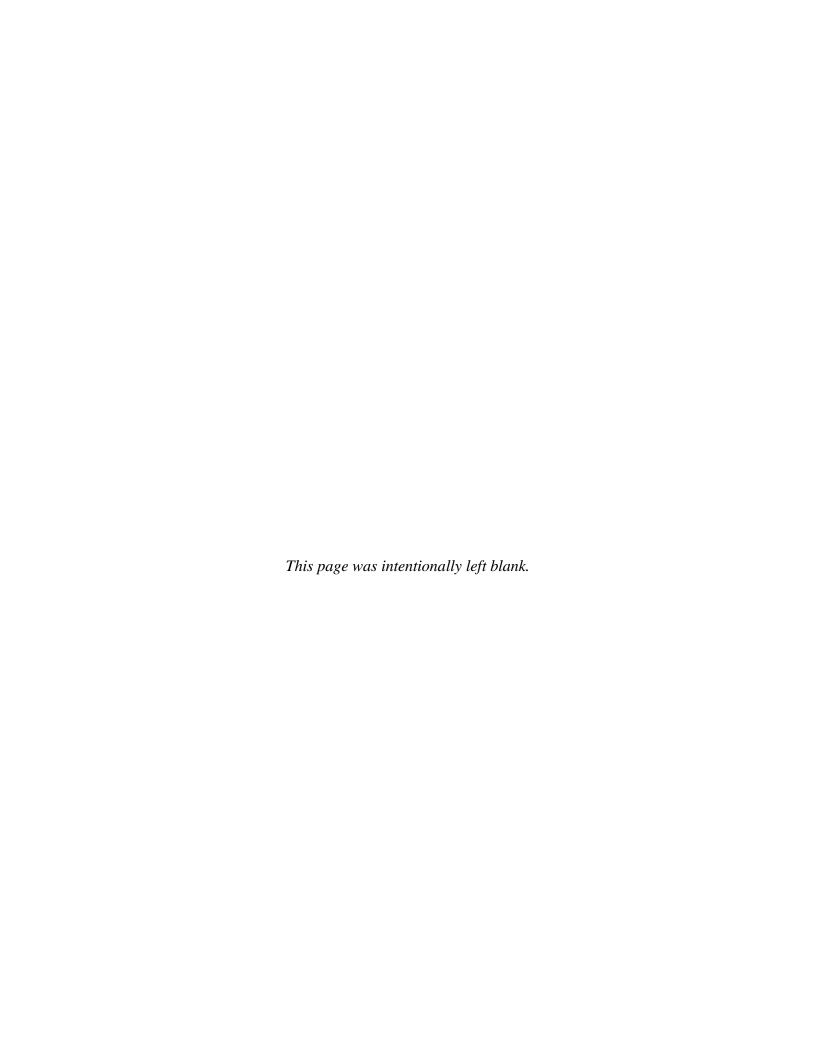
Comm	unity Involvement Plan – Introduction	1
A.	WQARF Process	2
B.	Designated Spokesperson	4
C.	Information Repository and Website	4
Chapte	er 1 – Site Overview	5
Chapte	er 2 – Community Profile	7
A.	Community Involvement Area	7
B.	Community Demographics	8
Chapte	er 3 – Community Issues and Concerns	11
A.	Environmental and Health Concerns	11
B.	Outreach and Other Concerns	11
C.	Response to Community Issues and Concerns	12
Chapte	er 4 – Community Involvement Action Plan	13
A.	Community Involvement Action Summary – Required Activities	13
B.	Community Involvement Action Summary – Communication Techniques	21
C.	Other Resources and Contacts	25

## **Appendices**

Appendix A	Site History
Appendix B	Targeted Communities
Appendix C	Local and State Elected Officials
Appendix D	Community Advisory Board Members
Appendix E	Media Outlets
Appendix F	Related Agencies and Contact Information

Acronyms and Glossary of Terms

**Disclaimer:** All telephone numbers, email addresses, and contact names are subject to change after the date of this publication. The statistical data provided in the community demographics section are approximated based on information provided by the 2010 U.S. Census.



#### **Community Involvement Plan – Introduction**

The Arizona Department of Environmental Quality (ADEQ) is committed to involving citizens in the cleanup of contaminated sites in Arizona per the Water Quality Assurance Revolving Fund (WQARF) program. Created under the Environmental Quality Act of 1986 to support hazardous substance cleanup efforts in the state, WQARF is dependent upon legislative appropriations, cost recovery from responsible parties, corporate income taxes, and special fees for its funding.

The WQARF program identifies sites that are most in need of cleanup and adds them to the WQARF Registry. Sites on the WQARF Registry receive primary consideration for the distribution of funds for investigation and cleanup. WQARF sites are assigned a numeric score based on several factors including the types of contaminants present, the location of the contaminants, and the number of people who may be affected by the contaminants. These scores are used to help determine relative risk at the site and do not necessarily mean that there is a direct risk to humans or the environment.

The Cooper Road and Commerce Avenue site, located in Gilbert, Arizona, was placed on the WQARF Registry in June 2004 with a score of 33 out of a possible 120.

Arizona Revised Statutes (A.R.S.) § 49-287.03(B) and § 49-289.03, as well as Arizona Administrative Code (A.A.C.) R18-16-404, specify that a community involvement plan (CIP) be developed for each site before beginning the Remedial Investigation. The purpose of the CIP is to provide a meaningful process for two-way communication between ADEQ and the public in order to keep the community informed about the progress of the site investigation and remediation. The CIP will accomplish this goal using the following steps:

- 1. Ensure public access to project information in a timely manner;
- 2. Identify a community involvement area (CIA) and provide opportunities for community members and other stakeholders to participate in the decision-making process associated with the environmental investigation and remediation of the site;
- 3. Establish a Community Advisory Board (CAB);
- 4. Designate an ADEQ spokesperson; and
- 5. Develop a plan for distributing site information to residents within the site community involvement area.

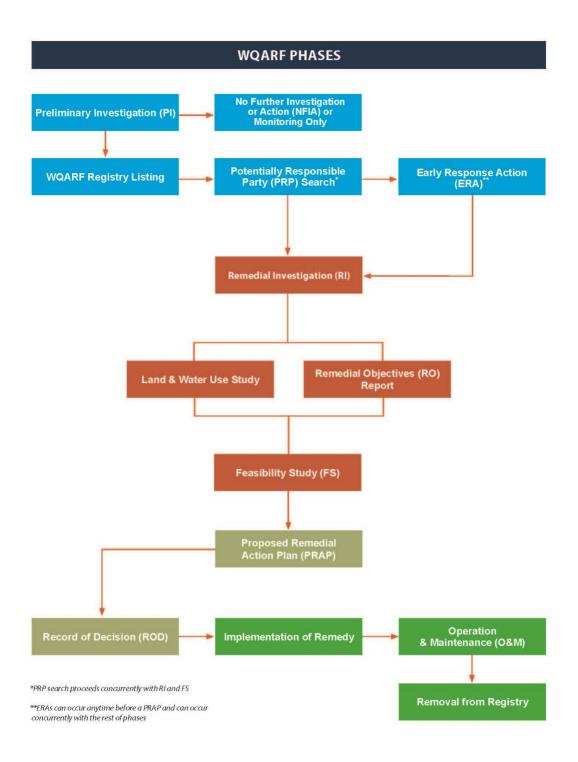
This CIP will describe ADEQ's role and public participation opportunities regarding the WQARF process. ADEQ community involvement staff will review and update this plan on a regular basis taking into consideration site-specific developments and public health and environmental impacts, as well as public comments and community concerns. ADEQ also will solicit and consider CAB input to this CIP.

#### A. WQARF Process

The goal of the WQARF process is to clean up sites with groundwater and/or soil contamination as a means to ensure that human health and the environment are protected. The WQARF process uses a step-by-step approach to thoroughly investigate contaminated sites and determine the best method for achieving site cleanup. The length of these processes and methods of cleanup vary for each WQARF site.

For sites where the contamination has minimal impact to humans, cleanup may be achieved by restricting land or water use and allowing the contamination to dissipate naturally. For this method, regular monitoring of the groundwater or soil would occur to ensure that the contamination continues to decrease. For sites where the contamination may impact human health, cleanup methods may involve restricting land or water use, actively treating or filtering the groundwater to remove contamination, digging up any contaminated soil and removing it from the area, bioremediation/other in situ methods, or a combination of these actions.

The following WQARF process flow chart depicts the different phases in the WQARF process from the initial investigation of a site that is suspected of having contamination, to the implementation of the cleanup method (also known as the remedy), to finally the eventual removal of the site form the WQARF Registry upon satisfactory cleanup. The WQARF process flow chart is color coded for ease of reference and corresponds to the Community Involvement Action Summary table in Chapter 4, where required community involvement activities by WQARF phase are discussed. Detailed definitions of each WQARF phase can be found in the glossary at the end of this CIP.



#### **B.** Designated Spokesperson

A designated spokesperson will inform the public of upcoming events, ensure that the CIP is implemented according to schedule, and act as liaison between ADEQ and the community. Additionally, the spokesperson will determine methods for personal contact, arrange for the availability of a translator at meetings as needed, and coordinate the recording of presentations. For further information regarding the Cooper Road and Commerce Avenue WQARF site, please contact the designated spokesperson at the following:

# Community Involvement Coordinator ADEQ

1110 West Washington Street, 6th Floor Phoenix, AZ 85007 (602) 771-8149 Or (800) 234-5677, Ext. 6027718149 Fax: (602) 771-4272 View WQARF Team Contacts Online: http://www.azdeq.gov/WQARF

## C. Information Repository and Website

An information repository of public documents pertaining to the Cooper Road and Commerce Avenue WQARF site is available for review both online and in person. Documents available in the repository include milestone reports, public notices, and CAB meeting materials. Technical documents relating to future milestones in the WQARF process will be made available to the public as they are completed. Interested parties can review site information by visiting the information repository online or in person as follows:

#### Online

Cooper Road and Commerce Avenue WQARF Site (https://azdeq.gov/node/888)

#### In Person

ADEQ Records Center
1110 West Washington Street
Phoenix, AZ 85007
(602) 771-4380
Or
(800) 234-5677, Ext. 602-771-4380
(Please call to make an appointment)

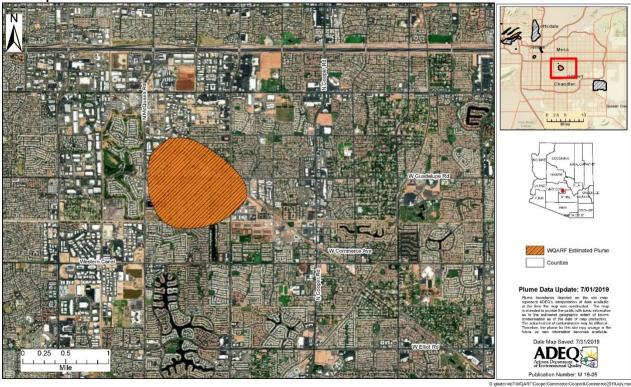
To make alternate arrangements to review documents in person at a location nearest you, contact the ADEQ Community Involvement Coordinator.

## **Chapter 1 – Site Overview**

The Cooper Road and Commerce Avenue WQARF site is located in Gilbert, Arizona. The site was placed on the WQARF Registry in June 2004 with an eligibility and evaluation score of 33 out of a possible total of 120. The major factor leading to the site's score was the presence of volatile organic compounds in groundwater at levels exceeding Arizona Aquifer Water Quality Standards (AWQS).

#### Cooper Road and Commerce Avenue WQARF Site - Gilbert, Arizona

#### Cooper Road and Commerce Avenue



This site is bounded by West Houston Avenue to the north, the West Cullumber Avenue to the south, North Golden Key Street to the east, and North El Dorado Drive to the west.

The groundwater contaminants of concern at the site are tetrachloroethene (PCE) and trichloroethene (TCE).

ADEQ had been operating a groundwater pump and treat system and an early response soil vapor extraction/air sparge (SVE/AS) system to remediate the site contamination. The groundwater pump and treat system was shut down in September 2014 to evaluate the need for continued operation. During operation from 2010 to 2014, the groundwater pump and treat system treated over 193,000,000 gallons of water, and recovered over 40 pounds of volatile organic compounds.



**Groundwater Monitoring Well Installation** 

SVE was initiated in 2008 and is still operational. Additional groundwater monitoring wells were installed at the site in 2016 and 2018, and regular groundwater sampling events take place at the site. In 2016, ADEQ conducted groundwater modeling to examine the effect of natural attenuation at the site. SVE was initiated in 2008 and is still operational. The Proposed Remedial Action Plan was completed in July 2019.

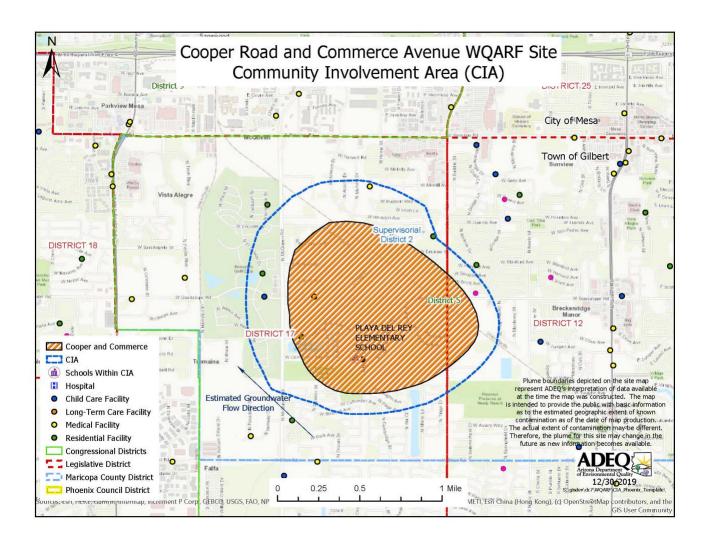
For more detailed information about the history of the Cooper Road and Commerce Avenue WQARF site, please refer to Appendix A (Site History) of this CIP.

## **Chapter 2 – Community Profile**

#### A. Community Involvement Area

ADEQ has established a CIA for each site per A.R.S. § 49-289.02(A) and (B). A CIA is established to designate a geographic area to which mass mailings will be delivered. CIA boundaries are determined based on site specific characteristics such as the affected media (i.e., soil, surface water, or groundwater), exposure routes, proximity to residential areas and public facilities, and level of community interest. The CIA may change as new information is received.

The map below illustrates the community involvement area for the Cooper Road and Commerce Avenue WQARF site.

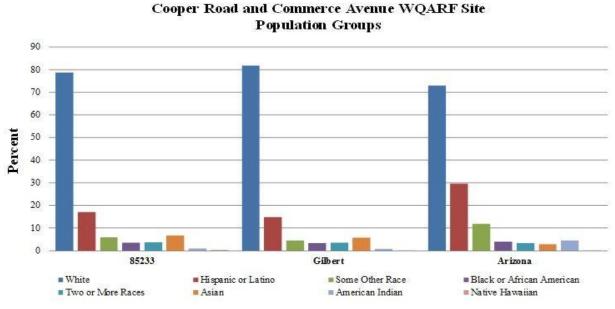


#### **B.** Community Demographics

The Cooper Road and Commerce Avenue WQARF site is located in Gilbert, Arizona. In 2010, the population of Gilbert was 208,453, making it the seventh most populated city in Arizona. The community involvement area boundary for the Cooper Road and Commerce Avenue WQARF site encompasses the zip code 85233 and is estimated to contain approximately 13,674 households.

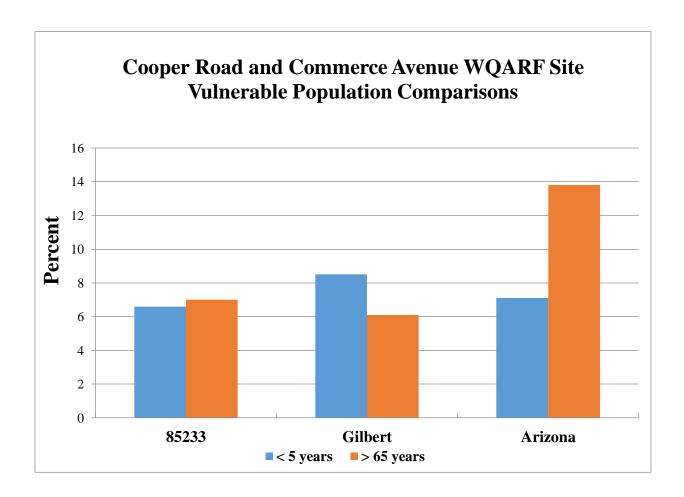
According to the 2010 U.S. Census data, the total population for the zip code encompassed by the community involvement area was 37,564, with an average household size of 2.74 persons. Residents of the area consisted of more homeowners (70.3%) than renters (29.7%). The median resident age is 34.7, which is younger than the median age for Arizona residents as a whole (35.9).

As represented in the Population Groups graph that follows, the 2010 U.S. Census data demonstrates that residents in the Cooper Road and Commerce Avenue WQARF site community involvement area identify themselves as approximately 78.8% White; 6.7% Asian; 5.9% Some Other Race; 3.7% Two or More Races; 3.5% Black or African American; 1.1% American Indian or Alaska Native; and 0.3% Native Hawaiian. According to the U.S. Census Bureau, people of Hispanic or Latino descent may be of any race. People identifying themselves as Hispanic or Latino within the Cooper Road and Commerce Avenue WQARF site community involvement area comprised 17.1% of the population, which is lower than the 29.6% average Hispanic and Latino population for the State of Arizona.



Note: Individuals identifying as Hispanic or Latino may be of any race and are already accounted for in the population percentages for the racial groups within each zip code, city, and state

ADEQ also looks at the community as a whole with an emphasis on the percentage of people who are unusually sensitive to contaminants. These people are those who are under the age of 5 or over the age of 65, as well as those people with health issues. The Vulnerable Population Comparisons graph that follows is based on 2010 U.S. Census data and presents the percentages of age-sensitive populations within the Cooper Road and Commerce Avenue WQARF site community involvement area.



For further demographic information regarding the CIA, please refer to the listing of neighborhood associations, community schools, and vulnerable population centers in Appendix B, and local and state elected officials in Appendix C.

This page was intentionally left blank.

#### **Chapter 3 – Community Issues and Concerns**

In order to better understand the community and its concerns, ADEQ conducted telephone interviews of CAB members who have lived or worked in the area surrounding the Cooper Road and Commerce Avenue WQARF site. ADEQ also solicited interviews from the general public via a postal mailing, but no responses were received within three weeks of the mailing. The CAB members are listed in Appendix D. The following is a summary of their common concerns involving the environment, health, and ADEQ outreach activities.

#### A. Environmental and Health Concerns

Because all of the interviewees were CAB members, they were familiar with the Cooper Road and Commerce Avenue WQARF site. All interviewees had been aware of the site for at least 10 years and lived within one mile of the site.

Interviewees were asked about environmental and health concerns. The following questions summarize concerns that were raised:

- B. What are the potential effects on drinking water?
- C. What progress has been made toward cleanup goals at the site?

#### B. Outreach and Other Concerns

Interviewees provided the following feedback and suggestions on current and future outreach pertaining to the Cooper Road and Commerce Avenue WQARF site:

- Three interviewees thought that the general community was unaware of the site. One interviewee stated that there was some concern about the site, but not a great level of concern. One interviewee stated that when people learned of the site, they were glad to know that a CAB for the site existed.
- All interviewees thought that ADEQ has been effective in communicating information about the site and in providing it in form that makes it easy to understand. All interviewees also cited the importance of public meetings for presenting and understanding information about the site.
- Most interviewees stated that email was their preferred method for receiving information about site activities. One interviewee preferred public meetings as the primary forum for receiving information and also cited the importance of providing updates through the ADEQ website.
- Few suggestions were provided to increase attendance at the public meetings. One interviewee stated that ADEQ regularly advertised the meetings in the newspaper. One

interviewee stated that he mentioned the public meetings to his homeowners association. One interviewee thought that more ADEQ mailings should be sent and wondered if budget concerns had prevented this from occurring.

• All interviewees stated that they knew whom to contact at ADEQ for questions pertaining to the site and were unaware of any specific populations that ADEQ had not contacted or attempted to contact in its outreach.

#### C. Response to Community Issues and Concerns

ADEQ uses the information gathered from community interviews, CAB and public meetings, and direct contact to ensure that future outreach activities and materials are able to address community questions and concerns as well as keep the community informed of WQARF site activities. Additionally, community feedback informs ADEQ outreach practices and allows the communication techniques noted in Chapter 4, Section B to be tailored to the specific needs of the community.

## **Chapter 4 – Community Involvement Action Plan**

In addition to providing the framework for the state to investigate and clean up contaminated sites, the WQARF program also requires that ADEQ involve the community in the cleanup process. The following Community Involvement Action Summary table describes the required community involvement activities according to each WQARF phase and illustrates where the Cooper Road and Commerce Avenue WQARF site is in the WQARF process at the time of this writing. This summary is followed by a description of the communications vehicles and techniques available for use. Multiple techniques to communicate with and educate the public may be used throughout the process of remediating the WQARF site.

## A. Community Involvement Action Summary – Required Activities

The following Community Involvement Action Summary table describes the required community involvement actions for the Cooper Road and Commerce Avenue site and notes what actions have been completed to date. The Community Involvement Action Summary table is color coded to match the WQARF process flow chart in the CIP introduction.

This page was intentionally left blank.

#### **Community Involvement Action Summary Mandated ADEQ Community Involvement Activity** Statute (A.R.S.) **WQARF** Phase (See Chapter 4, Section B, for a detailed description of the applied and Rule (A.A.C) **Activity to Date** Complete communications techniques described herein.) References **Preliminary** Provide owners and operators a copy of the Draft WQARF Site Registry A.R.S. § 49-287.01(C) Mailing to owners and operators, February 8, 2004 Report for a 15-day comment period prior to publishing a notice in a Investigation A.R.S. § 49-289.03(A)(1) newspaper announcing the availability of the Draft WQARF Site Public notice, Arizona Republic, February 23, 2004 Registry Report for a 30-day public comment period. **WQARF** Following the listing of a site on the WQARF Registry, ADEQ will: A.R.S. § 49-289.02 Notice to community and development of a community involvement area, September 2004 **Registry Listing** • Establish a preliminary community involvement area (see Chapter 2, Section A) within 90 days of site listing on the WQARF Registry. • Provide written notice to the community on hazardous substance contamination in the area, the actual and potential risks and routes of exposure, possible health effects, and the opportunity to join the site mailing list. • Identify ADEQ personnel to contact for further information. Develop a Community Involvement Plan that establishes a Community A.R.S. § 49-287.03(D) Original CIP, Summer 2004 Advisory Board, designates a spokesperson, provides for newsletters A.R.S. § 49-289.03(B) Updated CIPs, April 2008, July 2016, January 2019 and January 2020. with current information about the status of remedial actions at the site, A.R.S. § 49-289.03(C) establishes a public document repository location, and provides for schedules of Community Advisory Board meetings and public meetings. A.A.C.R18-16-404(C)(1)(i) Update the Community Involvement Plan at least every 2 years. A.A.C. R18-16-404(C)(1)(j)

A.A.C. R18-16-404(C)(1)(k) A.A.C. R18-16-404(C)(1)(o)

Community Involvement Action Summary						
WQARF Phase	Mandated ADEQ Community Involvement Activity  (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete		
Early Response Action	A work plan shall be prepared for each Early Response Action that will include a description of work to be done, known site conditions, a plan for conducting the work, a description of community involvement activities for the Early Response Action under R18-16-404, and a schedule.  Community involvement activities may include development of a community involvement plan under A.A.C. R18-16-404(C) or community involvement activities appropriate to the scope and schedule of the work performed such as a general public notice to those who may be impacted by field work as indicated in A.A.C. R18-16-404(D)(2).  If immediate action is necessary to address a current risk to public health or the environment, to protect a source of water, or to provide a supply of water, the work plan and written rationale may be prepared and the community involvement activities may be conducted after commencement of the Early Response Action.	A.A.C. R18-16-405(D)(2) A.A.C. R-18-16-405(E) A.A.C. R18-16-405(G)	Early Response Action activities, 2005, 2007, 2010, and 2012	<b>√</b>		
Remedial Investigation 1	Provide notice to interested parties announcing the availability of the Remedial Investigation Scope of Work or Work Plan, Fact Sheet, and Community Involvement Plan outline for review and a 30-day public comment period. Provide notice indicating that any person, by written agreement with ADEO may develop and	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-301(C) A.A.C. R18-16-403(F)	Combined notice, Summer 2004			

person by written agreement with ADEQ may develop and

implement a work plan for the Remedial Investigation and

Feasibility Study and solicit information regarding the current and

future land and water uses at the site.2 These notices shall also

provide an opportunity to request a public meeting.

A.A.C. R18-16-403(G)

A.A.C. R18-16-406(B)

A.A.C. R18-16-406(D)

A.A.C. R18-16-404(C)(1)(a)

A potentially responsible party search is conducted concurrently with the Remedial Investigation and Feasibility Study, but does not have mandated community involvement activities.

<sup>2</sup> Data collected from land and water use studies will be incorporated into the Remedial Investigation and/or Remedial Objectives report per A.A.C. R18-16-406(D)-(I).

WQARF Phase	Mandated ADEQ Community Involvement Activity  (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete
Remedial Investigation (continued)	Establish a selection committee to choose Community Advisory Board members for the site. The selection committee shall consist of the following number of people from each organization:  • ADEQ: 1 • Potentially Responsible Party: 1 • Local Official: 1 • Local Community: 2	A.R.S. § 49-289.03(D)	Selection committee established, March 21, 2006	<b>√</b>
	Establish a Community Advisory Board of between 5 to 20 members that represent a diversified cross section of the community. Within 90 days of appointment by the Community Advisory Board selection committee, the Community Advisory Board shall elect co-chairpersons and develop a charter defining operating procedures, membership terms and obligations, goals for developing issues, concerns and opportunities related to quick cleanup of the site, and any other anticipated activities for identifying and improving the public's access and understanding of information regarding the remediation process at the site.	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03 (E) A.R.S. § 49-289.03(F)	CAB established, June 14, 2006	<b>√</b>
	Publish a combined3 public notice announcing the availability of the Draft Remedial Investigation Report for review and a minimum 30-day public comment period as well as hold a public meeting to solicit Remedial Objectives for the site. The public meeting shall be held not less than 45 calendar days and not more than 90 calendar days after release of the Draft Remedial Investigation report, unless ADEQ sets a different date for good cause.  The Draft Remedial Investigation Report should be provided to the Community Advisory Board, interested local government agencies, affected water providers and the Department of Water Resources.	A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F) A.A.C. R18-16-406(I)(1) A.A.C. R18-16-406(I)(2)	Draft Remedial Investigation Report public notice/comment period, October 23, 2014  Remedial Objectives public meeting, December 8, 2014	✓

<sup>3</sup> If not combined, separate public notices will be provided for the Draft Remedial Investigation/comment period and the Remedial Objectives solicitation and public meeting.

	Mandated ADEQ Community Involvement Activity			
WQARF Phase	(See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete
Remedial Investigation (concluded)	Publish a public notice announcing the availability of the Proposed Remedial Objectives Report for a 30-day public comment period.  Publish a public notice of the availability of the Final Remedial Investigation Report, which shall contain the results of site characterization and the final Remedial Objectives Report. The final Remedial Investigation report shall be accompanied by responsiveness summaries regarding comments, issues and concerns raised in the community involvement process and, if the report is prepared by a person other than ADEQ, copies of the comments received.	A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5) A.A.C. R18-16-406(J)	Proposed Remedial Objectives Report public notice/comment period, February 19, 2015  Final Remedial Investigation Report public notice, July 9, 2015	<b>√</b>
Feasibility Study	Provide notice to interested parties announcing the availability of the Feasibility Study Work Plan*  *Although not mandated, ADEQ will also provide public notice upon completion of the Feasibility Study.	A.A.C. R18-16-404(C)(1)(d) A.A.C. R18-16-407(B)	Feasibility Study Work Plan public notice, July 9, 2015	✓

WQARF Phase	Mandated ADEQ Community Involvement Activity  (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S.) and Rule (A.A.C) References	Activity to Date	Complete
Proposed Remedial Action Plan	Publish a public notice announcing the availability of the Proposed Remedial Action Plan for a 90-day public comment period. Mail the same notice to interested parties. The notice will describe the proposed remedy and its estimated cost and identify where the Proposed Remedial Action Plan, Remedial Investigation, and Feasibility Study Reports may be inspected.	A.R.S. § 49-287.04(B) A.R.S. § 49-289.03(A)(2) A.A.C. R18-16-301(C) A.A.C.R18-16-404(C)(1)(e) A.A.C. R18-16-408(A)	Proposed Remedial Action Plan public notice, July 18, 2019	✓
Record of Decision	Publish a public notice announcing the availability of the Record of Decision and Responsiveness Summary for review.	A.R.S. § 49-287.04(G) A.A.C. R18-16-404(C)(1)(f) A.A.C. R18-16-410		
Implementation of Remedy (Remedial Actions)	Publish a public notice announcing a request for ADEQ to approve remedial actions at the site. The notice will provide the opportunity for a 30-day public comment period.	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(h) A.A.C. R18-16-413		
Actions)	Provide notice to the public and interested parties of a request for ADEQ to waive a regulatory requirement (permit) to complete remedial actions.	A.R.S. § 49-290 A.A.C. R18-16-404(C)(1)(l)		
	Provide notice to the public that fieldwork conducted to remove contaminants of concern may result in noise, light, odor, dust, or other adverse impacts.	A.A.C. R18-16-404(C)(1)(m)	Posted as needed to affected parties and locations.	
	Provide notice to the public of a request for ADEQ to determine whether each of the Remedial Objectives for a site have been satisfied and will continue to be satisfied. The notice will provide the opportunity for a 30-day public comment period on the request.	A.A.C. R18-16-404(C)(1)(n)		

WQARF Phase	Mandated ADEQ Community Involvement Activity  (See Chapter 4, Section B, for a detailed description of the applied communications techniques described herein.)	Statute (A.R.S) and Rule (A.A.C) References	Activity to Date	Complete
Operation & Maintenance	Publish a public notice announcing the availability of the Operation & Maintenance Plan for review and a 30-day public comment period. Mail the same notice to interested parties.			
Removal from WQARF Registry	Although not mandated by Arizona Statute or administrative code, ADEQ may publish a public notice upon the removal of the site from the WQARF Registry.			
Any Phase	Publish a public notice announcing a request to ADEQ for a prospective purchaser agreement. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(3) A.A.C. R18-16-301(C)	No prospective purchaser agreement requests have been submitted to date.	Not Applicable
Any Phase	Publish a public notice announcing the intention of ADEQ to enter into a settlement agreement with a responsible party. The notice will provide the opportunity for a 30-day public comment period.	A.R.S. § 49-289.03(A)(4) A.A.C. R18-16-301(C)	No settlement agreement requests have been submitted to date.	Not Applicable

# B. Community Involvement Action Summary – Communication Techniques

As previously described in the Community Involvement Action Summary table, there are required communications activities for every phase of the WQARF process. This section describes the specific activities and resources that ADEQ uses and has available to communicate with, educate, and help the community and stakeholders be actively involved in the Cooper Road and Commerce Avenue WQARF site.

ADEQ will continue to use the following resources to keep stakeholders informed throughout the process:

- 1. CAB The CAB has been conducting public meetings about the Cooper Road and Commerce Avenue WQARF site with ADEQ's assistance since June 2006. CAB members advise ADEQ on appropriate means of delivering site information as well as provide input regarding content. CAB members also serve as an information resource for their community. CAB meetings are held at a location and date mutually agreed upon by the CAB members and an ADEQ representative. Care is taken to ensure the location is easily accessible for the public to attend. For a list of CAB members, see Appendix D.
- 2. Local Print Media ADEQ will publish all WQARF milestone public notices in the *Arizona Business Gazette*, which has a search function for public notices (http://archive.azcentral.com/class/azbjnotices.html), and the *Arizona Republic East Valley*. For a list of other media outlets, see Appendix E.
- 3. U.S. Mail and Email Lists ADEQ maintains U.S. Mail and email address lists for the Cooper Road and Commerce Avenue WQARF site. Mailing list addresses are compiled and updated on an ongoing basis through CIP updates, as return mailers from fact sheets, CABs, open houses, and public meeting attendance lists, and other individual requests. These distribution lists include CAB members, local elected and appointed officials, Town of Gilbert Public Information Office, neighborhood and homeowner association contacts, schools, and vulnerable population centers representing/located within the site community involvement area (see Appendices B through D), as well as other interested parties.
- **4. ADEQ Website** ADEQ's website provides visitors with three areas of information related to the site and is updated on an ongoing basis:
  - Notices Page The notices page provides information regarding WQARF site public notices and comment periods (http://azdeq.gov/notices). This information can also be found on the WQARF site information page.
  - Events Page The events page provides information regarding WQARF site public meetings, including CAB meetings (<a href="http://www.azdeq.gov/events">http://www.azdeq.gov/events</a>). This information can also be found on the WOARF site information page.

- WQARF Site Information Page The WQARF site information page provides detailed site information and access to the online information repository for the WQARF site, which will include milestone documents (https://azdeq.gov/node/883).
- **5. ADEQ Notice Board** Notice boards are located in ADEQ's Phoenix and Tucson offices.
- **6. Public Meetings** Public meetings or open houses, beyond the CAB meetings, may be scheduled and conducted as needed and as determined by ADEQ and the CAB (for example, meetings with neighborhood/homeowner's associations, schools or other community groups).
- **7. Site Tours** Tours of the site may be requested and arranged in conjunction with the property owners and in compliance with current laws and regulations by contacting the ADEQ Community Involvement Coordinator.

The following table of Communication Techniques illustrates how these techniques have and will be used throughout the WQARF process for the Cooper Road and Commerce Avenue WQARF site.

# **Communication Techniques**

Communications Deliverable			Communications Recipients/Methods				
Type4	Why	When	CAB Members	Interested Parties List	ADEQ Website	Local Print Media	ADEQ Notice Board
Notice	Provide notice of availability of milestone documents, request comments, and solicit input.	Per mandate (See Community Involvement Action Summary table).	✓	✓	(Site and calendar pages)	✓ (Arizona Business Gazette/Arizona Republic East Valley)	<b>✓</b>
CAB Meeting Notice/Agenda	Provide two-way communication about the status of site activities. The notice announces the meeting and provides the agenda.	Variable schedule based on level of site activity as scheduled by CAB and ADEQ, with the exception of the required public meeting for the solicitation of remedial objectives (see Community Involvement Action Summary table).	✓	✓	(Site, calendar, and CAB history pages)	Not Applicable	<b>✓</b>
Technical Presentation	Provide current information about site activity or related topics.	At CAB meetings or at specially requested public meetings.	✓	Not Applicable	✓ (Site page)	Not Applicable	Not Applicable
Technical Milestone Document	Provide current technical information about site investigation/remediation activities (e.g., Remedial Investigation, Feasibility Study, etc.)	According to the WQARF Process as documents are developed and become available.	✓	Not Applicable	✓ (Online information repository)	Not Applicable	Not Applicable
Site Fact Sheet/Newsletter	Provide current information about the site activity.	Published at the start of the Remedial Investigation and at specific milestones or other times as deemed appropriate by ADEQ and the CAB.	✓	✓	✓ (Online information repository)	Not Applicable	Not Applicable
Public Meeting	Provide forum to solicit Remedial Objectives. (Note that this meeting may be conducted in conjunction with a CAB meeting.) Additional public meetings may be used to discuss site activities as determined by level of community interest.	As required/if requested.	✓	✓	✓ (Site and calendar pages)	✓ (Arizona Business Gazette/Arizona Republic East Valley))	✓
Site Tour	Provide walking or driving tour of the site to observe current site conditions and the surrounding community and environment.	If requested, and with cooperation of current property owners.		Contact AD	DEQ Community Involvemen	t Coordinator.	

<sup>&</sup>lt;sup>4</sup> Communications deliverables may be translated into Spanish if deemed necessary or requested.

This page was intentionally left blank.

#### C. Other Resources and Contacts

In addition to the designated spokesperson and information repository identified at the beginning of this CIP, the appendices included in this CIP provide additional resources and contact information for the public to use as desired.

- **Appendix A** provides a history of major activities by year at the Cooper Road and Commerce Avenue WQARF site.
- **Appendix B** provides a list of targeted communities in the Cooper Road and Commerce Avenue WQARF site community involvement area (CIA). These include neighborhood associations, community schools, and vulnerable population centers that are in or near the CIA.
- **Appendix C** provides a table of local and state elected officials, by ward or district, who represent communities within the community involvement area. Note that some wards or districts may encompass more of the CIA than others.
- **Appendix D** provides a table of the Cooper Road and Commerce Avenue WQARF site CAB members.
- **Appendix E** provides a list of media outlets in the area. All future public notices for the Cooper Road and Commerce Avenue WQARF sites can be found by searching the *Arizona Business Gazette* publication (<a href="http://archive.azcentral.com/class/azbjnotices.html">http://archive.azcentral.com/class/azbjnotices.html</a>).
- **Appendix F** provides a list of other related state and local agencies that may be of interest to the public.

This page was intentionally left blank.

## **Appendix A – Site History**

The following presents a site history in chronological order for the Arizona Department of Environmental Quality (ADEQ) Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund (WQARF) site.

The current site contaminants of concern are tetrachloroethene (PCE), trichloroethene (TCE), arsenic, and copper. However, past contaminants of concern included chromium, total petroleum hydrocarbons (TPH), mercury, and lead, which is why results of these additional contaminants are presented in the site history below.

1977

United Chemical Corporation (Unichem) purchased the site property, located at 619 West Commerce Avenue in Gilbert, Arizona, and constructed facilities for the production of copper sulfate from scrap metal. A dry well was constructed near the center of the concrete pavement that served as the foundation for the processing plant. ADEQ believes this dry well is the source of PCE contamination at the site. The copper sulfate production process used aqueous ammonia, lix (a petroleum-based compound) blended with kerosene, and sulfuric acid to extract copper from the scrap metal. A diesel-fired boiler was used to heat the process stream before the crystallization of the copper sulfate. PCE was reportedly used to manufacture a coolant, possibly used in the crystallization process.

1983-1984

Unichem discontinued operations at the site prior to 1983. In July 1983, Unichem sold the property to Aztec Resources, which operated a gold extraction plant at the site. The process reportedly used cyanide baths to extract gold from scrap materials and mine tailings. In September 1984, the property was reacquired by Unichem.

1989

The ADEQ Hazardous Waste Inspection Unit began investigating operations on the eastern portion of the site property. Several shallow soil samples were collected from the property. Samples collected from the sump of the dry well detected cyanide at levels above the residential soil remediation level (SRL) for hydrogen cyanide of 11 milligram/kilogram (mg/kg). Arsenic, lead, and copper were also present at concentrations above their respective residential SRLs.

1990

Soil samples were collected at 12 inches below ground surface (bgs) at two locations on the western portion of the site. Arsenic, copper, and PCE were detected, but only arsenic was found at a level above its residential SRL.

A soil vapor survey found PCE in the soil vapor on the east side of the site between 4 and 5 feet bgs. TPH was also detected in the soil samples and may have been related to the diesel-fired boiler. ADEQ has no current remediation standard for TPH in soil.

1994 Cyanide-contaminated soils found at the site in the area of the dry well were removed to a depth of 3 feet.

Three groundwater monitoring wells were installed at the site. Arsenic, chromium, and lead were detected at levels above residential SRLs. However, the soil samples did not contain any detections above minimum groundwater protection levels (GPLs).

Groundwater samples taken at the time of well installation detected PCE above its Aquifer Water Quality Standards (AWQS) limit of 5.0 micrograms per liter ( $\mu$ g/L). Arsenic and barium were detected in the groundwater samples, but at levels below their respective AWQS limits. Cyanide, benzene, ethylbenzene, toluene, xylene and TPH were analyzed for but not detected in the groundwater samples.

An exploratory boring was drilled to 99 feet bgs within the on-site dry well. During drilling, soil samples were collected every 5 to 10 feet. Arsenic, chromium, TPH, and mercury were detected above their respective residential SRLs. PCE was detected at a level above its residential SRL of 53 mg/kg and minimum GPL of 1.3 mg/kg, with PCE concentrations ranging from 800 to 24,000 mg/kg at depths from 40 to 70 feet bgs. The highest concentration of PCE (24,000 mg/kg) was detected in the soil sample collected at 70 feet bgs.

- Groundwater monitoring at the site continued. PCE was detected at a concentration as high as  $6,600 \,\mu\text{g/L}$  in a monitoring well located north of the drywell.
- 2001 PCE and TCE were detected at concentrations above the AWQS limit of 5  $\mu$ g/L in groundwater samples collected from a Town of Gilbert monitoring well.
- ADEQ sampled a monitoring well west of the dry well and a monitoring well south of the dry well. The concentrations of PCE in groundwater samples from the two monitoring wells exceeded the AWQS limit.
- ADEQ installed two additional monitoring wells east of Cooper Road and approximately 1,900 feet northwest of the site.

ADEQ conducted a Preliminary Investigation and placed the site on the WQARF Registry in June with a score of 33 out of a possible 120.

ADEQ conducted quarterly groundwater monitoring at the site. In general, concentrations of PCE in the groundwater were lower than concentrations detected previously. No TCE was detected above AWOS limits.

2005

2006

2007

2008

2009

2010

ADEQ completed an Early Response Action (ERA) evaluation at the site. During this ERA evaluation, ADEQ investigated the extent of PCE contamination in soil, soil gas, and groundwater at the site. ADEQ installed a groundwater extraction well, several soil



**Installation of Monitoring Well** 

vapor monitoring wells, soil vapor extraction (SVE) wells, and groundwater air sparge (AS) wells.

In May, ADEQ installed three off-site groundwater monitoring wells to help determine the extent of the contaminant plume. In August, ADEQ conducted an SVE pilot test to determine unsaturated zone properties.

In February, ADEQ installed three more monitoring wells. Concentrations of PCE in these wells indicated that the groundwater contaminant plume extended north of Guadalupe Road.

The initial startup of the SVE system occurred in December.

ADEQ also worked on finalizing the construction design for the conveyance of treated groundwater to the Salt River Project (SRP) lateral canal south of the site and the Town of Gilbert wastewater treatment plant to the east of the site.

On May 6, the AS system began operating. The Town of Gilbert approved ADEQ's plan to discharge treated groundwater to the town's wastewater treatment plant located immediately east of the site. SRP and ADEQ finalized an agreement for the construction of the treatment plant in the SRP right-of-way and for discharge to the canal south of the site.

In July, ADEQ completed construction of the piping from the pump and treat system plant to the Town of Gilbert sanitary sewer system and to the SRP canal. Continuous operations beginning in August. Groundwater monitoring of wells near the extraction well was conducted to determine the effectiveness of the pump and treat system.

In November, ADEQ installed an additional SVE well where previous sampling indicated that a surface spill of PCE had probably occurred.

- ADEQ continued to operate and maintain the SVE/AS and groundwater pump-and-treat systems. ADEQ's contractor completed an evaluation of the capture zone for the extraction well installed in 2006. The evaluation indicated a capture zone of approximately 300 feet, which included the source area of contamination.
- In June, ADEQ drilled and sampled three soil borings in the immediate vicinity of the main source area, the former drywell. The sample results indicated significant amounts of PCE were still present in the soils near the drywell. ADEQ installed two SVE wells in two of the borings.

ADEQ continued to operate and maintain the SVE/AS and groundwater pump-and-treat systems.

ADEQ continued to conduct groundwater monitoring of wells near the extraction well on a quarterly basis to monitor the effectiveness of the pump and treat system. In addition, the entire monitoring well network was sampled twice to monitor the extent of the plume.

ADEQ installed five additional shallow monitoring wells near the center of and in the southwest area of the groundwater plume. ADEQ also installed an additional deep monitoring well near the SRP canal and Cooper Road.

ADEQ continued to monitor wells near the extraction well on a quarterly basis to determine the effectiveness of the pump and treat system. In addition, the entire monitoring well network at the site was sampled twice in 2013 to track the extent of the plume. ADEQ continued to operate and maintain the SVE/AS and groundwater pump-and-treat systems.

- ADEQ continued to monitor wells near the extraction well on a quarterly basis to monitor the effectiveness of the pump and treat system. In addition, the entire monitoring well network at the site was sampled twice in 2014 to track the extent of the plume. The groundwater pump-and-treat system was shut down in September to evaluate the need for continued operation.
- Quarterly groundwater monitoring continued at the site and ADEQ finalized the Remedial Investigation (RI) Report in July.
- ADEQ conducted regulator groundwater monitoring at the site and installed two additional groundwater monitoring wells to better define the lateral and vertical extent of contamination. Two soil borings were installed at the source area to assess volatile organic compound (VOC) concentrations in soil and soil vapor. Additionally, ADEQ conducted groundwater modeling to examine the effect of natural attenuation at the site.

- ADEQ began drafting a site Feasibility Study (FS) Report and conducted regular groundwater monitoring at the site.

  The FS was completed in April 2018. In addition, ADEQ installed new monitoring
  - The FS was completed in April 2018. In addition, ADEQ installed new monitoring wells, conducted regular groundwater monitoring and continued operation of the SVE system.
- The Proposed Remedial Action Plan was completed in July.

This page was intentionally left blank.

## **Appendix B – Targeted Communities**

### A. Neighborhood Associations

The following list presents the neighborhood associations and their respective points of contact in the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund (WQARF) site community involvement area:

Bella Vista (480) 539-1396

Brown Community Management <u>www.homewisedocs.com</u>

7255 East Hampton Avenue, Suite 101, Mesa, AZ 85209

Cayman Square (480) 820-3451

Kinney Management Services <a href="http://www.kinneymanagement.com/contact.aspx">http://www.kinneymanagement.com/contact.aspx</a>

6303 South Rural Road, Tempe, AZ 85283

Crystal Point Estates (480) 820-1519

Heywood Realty info@heywoodrealty.com

42 South Hamilton Place, Suite 101, Gilbert, AZ 85233

Neely Ranch Management (480) 829-7400

PMG Services info@pmg-service.com

2345 South Alma School Road, Suite 21, Mesa, AZ 85210

Raintree Gardens Park Community Association (623) 691-0567

A S & A Property Management

No email address provided

PO Box 764, Gilbert, AZ 85299

Silverhawk Neighborhood Association (480) 551-4300

Rossamer & Graham contactus.az@fsresidential.com

9000 East Pima Center Parkway, Suite 300, Scottsdale, AZ 85258

**Sonesta Estates** (623) 977-3860

Colby Management Inc.

No email address provided

13622 North 99th Avenue, Sun City, AZ 85351

### **B.** Community Schools

The Cooper Road and Commerce Avenue WQARF site community involvement area includes the Gilbert Public School District. The following list presents the community schools in the Cooper Road and Commerce Avenue WQARF site community involvement area:

580 West Melody Avenue, Gilbert, AZ 85233

(480) 813-9537

## **B.** Community Schools (Continued)

140 South Gilbert Road, Gilbert, AZ 85296 321 West Juniper Avenue, Gilbert, AZ 85233	(480) 497-3300 (480) 892-2805
505 West Houston Avenue, Gilbert, AZ 85233	(480) 632-4785
550 North Horne Street, Gilbert, AZ 85233	(480) 892-7810

# **C.** Vulnerable Population Centers

The following list presents the vulnerable population centers, including places such as child care and assisted living facilities, in the Cooper Road and Commerce Avenue WQARF site community involvement area:

Above Care Assisted Living Home 680 West Harvard Avenue, Gilbert, AZ 85233	(480) 558-7778
<b>Eduprize</b> 580 West Melody Avenue, Gilbert, AZ 85233	(480) 813-9537
845 North El Dorado Drive, Gilbert, AZ 85233	(623) 505-4661
321 West Juniper Avenue, Gilbert, AZ 85233	(480) 892-2805
Oak Tree Elementary 505 West Houston Avenue, Gilbert, AZ 85233	(480) 632-4785
Playa Del Rey Elementary 550 North Horne Street, Gilbert, AZ 85233	(480) 892-7810
Heritage Manor Assisted Living LLC 1271 North Kingston Street, Gilbert, AZ 85233	(480) 907-7735
1675 West Guadalupe Road, Gilbert, AZ 85233	(480) 630-2816
Whipple Circle Manor Assisted Living 1101 North Whipple Circle, Gilbert, AZ 85233	(480) 503-4467
C. Vulnerable Population Centers (Continued) Yashua's Cedar	
437 West Merrill Avenue, Gilbert, AZ 85233	(480) 558-4684

This page was intentionally left blank.

# Appendix C – Local and State Elected Officials

As of the publication of this community involvement plan, the community involvement area for the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund site falls under Maricopa County Supervisorial District 2 and Arizona Legislature Districts 12 and 17. The Town of Gilbert does not have specified council districts.

TOWN	COUNTY	STATE	STATE
Officials	Supervisors	Representatives	Senators
Gilbert Town Hall 50 E. Civic Center Dr. Gilbert, Arizona 85296 (480) 503-6871	Maricopa County 301 W. Jefferson St. 10th Floor Phoenix, AZ 85003 (602) 506-3416	Arizona House of Representatives Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-4221	Arizona State Senate Capitol Complex 1700 W. Washington St. Phoenix, AZ 85007 (602) 926-3559
<b>Mayor</b> Town of Gilbert <b>Jenn Daniels</b>	County Supervisor District 2 Steve Chucri	Representative District 12 Travis Grantham	Senator District 12 Eddie Farnsworth
(480) 503-6764 Jenn.Daniels@gilbertaz.gov	(602) 506-7431 chucris@mail.maricopa.gov	Room #302 (602) 926-4826 tgrantham@azleg.gov	Room #304 (602) 926-5735 efarnsworth@azleg.gov
Council Members Town of Gilbert (480) 503-6764		Representative District 12 Warren Petersen	Senator District 17 J.D. Mesnard
Brigette Peterson Brigette.Peterson@gilbertaz.gov  Scott Anderson		Room #208 (602) 926-4136 wpetersen@azleg.gov	Room #309 (602) 926-4481 jmesnard@azleg.gov
Scott.Anderson@gilbertaz.gov  Aimee Yentes		<b>Representative</b> District 17 <b>Jennifer Pawlik</b>	
Aimee.Yentes@gilbertaz.gov  Jordan Ray jordan.ray@gilbertaz.gov		Room #118 (602) 926-3193 jpawlik@azleg.gov	
Jared Taylor jared.taylor@gilbertaz.gov			
Vice Mayor Town of Gilbert Eddie Cook		Representative District 17 Jeff Weninger	
(480) 503-6764 Eddie.Cook@gilbertaz.gov		Room #312 (602) 926-3092 jweninger@azleg.gov	

This page was intentionally left blank.

# **Appendix D – Community Advisory Board Members**

The following table presents a list of the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund (WQARF) site Community Advisory Board (CAB) members as of January 2020.

Cooper Road and Commerce Avenue WQARF Site CAB Co-Chairs				
Michael Evans (480) 330-0655 maskatce@cox.ne	555		Pacer Udall (480) 830-2700 dall@boothudall.com	
CAB Members				
Bruce Friedrich (480)765-7066 bruce.friedrich@utas.utc.com	Carrie I 480-926- carriejeanlewis2	-0122	Anne Landers 602-326-6010 anne.w.landers@gmail.com	
	Eric Br 480-467- Eric.Braun@gi	-7381		

This page was intentionally left blank.

## Appendix E – Media Outlets

The following list presents Phoenix metropolitan area (including Gilbert) media outlets that may be used by the public and Community Advisory Board members to promote information on the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund site. The *Arizona Business Gazette and The Arizona Republic East Valley* are the external media outlets that the Arizona Department of Environmental Quality will use to publish all public notices related to the site.

### A. Newspapers and Magazines

The Arizona Business Gazette 200 East Van Buren, Phoenix, AZ 85004	(602) 444-8000
The Arizona Republic 200 East Van Buren, Phoenix, AZ 85004	(602) 444-8000
East Valley Tribune 1620 West Fountainhead Parkway, Suite 219, Tempe, AZ 85282	(602) 898-6500
La Voz 200 East Van Buren, Phoenix, AZ 85004	(602) 444-3821
B. Radio	
Arizona News Radio Network (Arizona news and sports to 30 stations) 14605 North Airport Drive, Suite 370, Scottsdale, AZ 85260	(480) 483-8415
Bonneville International Corporation (KMVP, KMVP-FM, KTAR, KTAR-FM) 7740 North 16th Street, Suite 200, Phoenix, AZ 85020	(602) 277-5827
CBS Radio Stations, Inc. (KMLE, KOOL-FM, KZON) 840 North Central Avenue, Phoenix, AZ 85014	(602) 452-1000
Clear Channel Communications (KESZ, KFYI, KGME, KNIX-FM, KMXP, KTZR, KXEW, KYOT-FM, KZZP) 4686 East Van Buren Street, Suite 300, Phoenix, AZ 85008	(602) 260-6000

# B. Radio (Continued)

Maricopa County Community College District (KBAQ, KJZZ) 2323 West 14th Street, Tempe, AZ 85281	(480) 834-5627
Phoenix FCC License Sub, LLC (KAZG, KDKB, KDUS, KSLX-FM, KUPD) 1900 West Carmen, Tempe, AZ 85283	(480) 838-0400
Riviera Broadcasting Co. (KEXX, KKFR, KMVA, KOAI) 4745 North 7th Street, Suite 410, Phoenix, AZ 85014	(602) 648-9800
Sierra H. Broadcasting, Inc. (KAJM, KNJR) 1710 East Indian School Road, Suite 205, Phoenix, AZ 85016	(480) 994-9100
Univision Radio License Corporation (KHOT-FM, KNOV-FM, KKMR, KOMR, KQMR) 4745 North 7th Street, Suite 140, Phoenix, AZ 85014	(602) 308-7900
C. Television	
KAET Channel 8 (PBS) 555 N. Central Ave., Ste. 500, Phoenix, AZ 85004	(602) 496-8888
<b>KNXV Channel 15</b> (ABC) 515 N. 44th St., Phoenix, AZ 85008	(602) 273-1500
<b>KPHO Channel 5</b> (CBS) 4016Black Canyon Hwy., Phoenix, AZ 85017	(602) 264-1000
KPNX Channel 12 (NBC) 200 E. Van Buren St., Phoenix, AZ 85004	(602) 257-1212
, , , , , , , , , , , , , , , , , , , ,	
KSAZ Channel 10 (FOX) 511 W. Adams St., Phoenix, AZ 85003	(602) 257-1234
KSAZ Channel 10 (FOX)	(602) 257-1234 (602) 648-3900

## **Appendix F – Related Agencies and Contact Information**

The following list presents additional resources that may be used by the public and community Advisory Board members to address concerns or questions related to the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund site.

#### A. State of Arizona

### **Arizona Department of Agriculture**

1688 W. Adams St. Phoenix, AZ 85007 (602) 542-4373

#### **Arizona Department of Health Services**

150 N. 18th Ave. Phoenix, AZ 85007 Phone: (602) 542-1025

### **Arizona Department of Water Resources Groundwater Permitting and Wells Section**

3550 N. Central Ave. Phoenix, AZ 85012 Phone: (602) 771-8527

#### B. Town of Gilbert

900 East Juniper Avenue Gilbert, Arizona 85234 Phone: (480) 503-6400

#### **Public Information Office**

50 E. Civic Center Drive Gilbert, Arizona 85296

#### C. Other

### **Agency for Toxic Substances and Disease Registry**

Western Branch – Region 9 75 Hawthorne St. St. 100, M/S:HHS-1 San Francisco, CA 94105 Phone: (800) 232-4636

Consumer Information Line: (800) 223-0618

2910 North 44th Street, Suite 110

Phoenix, AZ 85018 Phone: (602) 771-7799

http://www.aaronline.com/wp-content/uploads/2013/01/seller-property-disclosure-statement.pdf

## **Acronyms and Glossary of Terms**

**1,1-Dichloroethane** (**1,1-DCA**): A colorless, oily liquid with a sweet odor. Typically, it is an intermediate product in the manufacture of 1,1,1-trichloroethane (1,1,1-TCA), and to a lesser extent vinyl chloride and high vacuum rubber. In the past it was used as a surgical anesthetic. It evaporates easily at room temperature and burns easily. It does not occur naturally in the environment.

**1,1-Dichloroethene** (**1,1-DCE**): A colorless liquid with a sharp odor that is used to make certain plastics, packaging materials, and flame retardant coatings. Typically, it is a degradation product of other chlorinated solvents.

**Air Sparging:** An in-situ treatment technology that uses injected air to help remove harmful vapors from polluted soil and groundwater below the water table by injecting air directly into the saturated subsurface to encourage the solvents and gasoline to evaporate faster, which makes them easier to remove with a vacuum.

**Aquifer**: An underground rock formation composed of such materials as sand, soil, or gravel, that can store groundwater and supply it to wells and springs. In aquifers, groundwater occurs in sufficient quantities to be used for drinking water, irrigation, and other purposes.

**Aquifer Water Quality Standard (AWQS)**: State of Arizona Maximum levels for contaminants that apply to groundwater in aquifers designated for drinking water use. For example, the AWQS for tetrachloroethene (PCE) is 5 parts per billion (ppb).

**Arizona Administrative Code** (**A.A.C**): Where the official rules of the State of Arizona are published. The *Code* is the official compilation of rules that govern state agencies, boards, and commissions.

**Arizona Department of Environmental Quality (ADEQ)**: ADEQ is the executive agency of the Arizona State Government mandated to enforce and administer the state's environmental laws and regulations.

**Arizona Revised Statutes (A.R.S)**: State laws adopted by the Arizona State Legislature.

**Arizona Water Company (AWC):** AWC is one of the largest investor-owned water utilities in Arizona. The company, with a home office in Phoenix, Arizona, was organized in 1955 around a nucleus of 10 water systems acquired from Arizona Public Service Company. It provides water service to a population of nearly 250,000 in 8 counties and in more than 30 communities throughout Arizona.

cis-1,2-Dichloroethene (cis-1,2-DCE): An odorless organic liquid that has two slightly different forms, a "cis" form and a "trans" form. Both the cis and trans forms (typically as a mixture) are used as a solvent for waxes and resins; in the extraction of rubber; as a refrigerant; in the manufacture of pharmaceuticals and artificial pearls; in the extraction of oils and fats from fish and meat; and in making other organics.

**Cleanup**: Actions taken that deal with a release or threat of release of hazardous substances that could adversely affect public health and/or the environment. The word "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

Community Advisory Board (CAB): A diverse group of community members interested in or affected by the presence of a Water Quality Assurance Revolving Fund (WQARF) site. By statute, ADEQ is required to form a CAB for each WQARF site where ADEQ is initiating a Remedial Investigation. ADEQ seeks the CAB's input in the decision-making process and works with them from the onset of the Remedial Investigation/Feasibility Study process until the requirements of the Record of Decision have been fulfilled.

**Community Involvement Area**: The mailing area of residences and businesses used in the notification for public meetings and other written notices regarding a site.

**Community Involvement Coordinator**: The ADEQ employee responsible for ensuring that all statutes and rules related to the involvement of the public and public outreach at WQARF sites are upheld and complied with by ADEQ. Community Involvement Coordinators manage and coordinate the work of CABs for WQARF sites.

**Community Involvement Plan (CIP)**: A document that identifies techniques used by ADEQ to communicate effectively with the public during the WQARF cleanup process at a specific site. This plan describes the site history, nature and history of community involvement, and concerns expressed during community interviews. In addition, the plan outlines methodologies and timing for continued interaction between the agencies and the public at the site.

**Contamination**: Any hazardous or regulated substance released into the environment.

**Contaminant:** Any physical, chemical biological or radiological substance or matter present in any media at concentrations that may result in adverse effects on air, water, or soil. A harmful or hazardous matter introduced into the environment that is not normally found there, or not naturally occurring.

**Early Response Action (ERA)**: Refers to a remedial action preformed prior to the final remedy and often prior to the Remedial Investigation. An Early Response Action addresses current risks to public health, welfare, and the environment; protects or provides a supply of water; addresses sources of contamination; or controls or contains contamination where such actions are expected to reduce the scope or cost of the remedy needed at the site. Also referred to as an interim remedial action.

**Feasibility Study (FS)**: A process to identify a reference remedy and alternative remedies that appear to be capable of achieving the Remedial Objectives for the site. It is often done as part of a two-phase investigation in conjunction with a Remedial Investigation.

**Granular Activated Carbon (GAC):** Treatment process used to remove dissolved contaminants from water by absorption.

**Groundwater**: Water located beneath the ground surface in soil pore spaces and in the fractures of geologic formations. A formation of rock or soil is called an aquifer when it can yield a usable quantity of water.

**Groundwater Protection Level (GPL):** Soil cleanup level that is protective of groundwater quality. A minimum GPL is established for an organic compound that has an AWQS and thus has some level of mobility in the subsurface. The minimum GPL is based on a "worst-case situation" where the whole soil profile from surface to groundwater is contaminated. The minimum GPL can be used as a soil remediation level without detailed, site-specific information.

**Hazardous Substance**: Any material that, because of its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

**Information Repository**: A collection of documents about a specific project. Information on certain WQARF sites may be available at ADEQ offices and libraries throughout the state.

**Interim Remedial Action (IRA):** An interim measure to remove or isolate contamination. This action can be taken at any time during the Superfund/WQARF process and is usually taken to protect people and the environment from high levels of contamination until the final Remedial Action can be taken.

**Monitoring Wells** (**Monitor Wells**): Wells installed for the purpose of collecting samples such as groundwater and soil vapor. Analytical results from samples are used to characterize the extent of contamination, the direction of groundwater flow, and the types and quantities of contaminants present in the groundwater.

**Operation and Maintenance (O&M)**: 1. Activities conducted after a WQARF site action is completed to ensure that the action is effective. 2. Actions taken after construction to ensure that facilities constructed to treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3. On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

**Plume**: A well-defined area of contamination in groundwater, soil or the air, often used to describe the dispersion of contamination in soil and/or groundwater.

**Potentially Responsible Party (PRP)**: Those parties (individuals or corporations) identified as potentially liable for cleanup costs at a contaminated site.

**Preliminary Investigation (PI)**: The process of collecting and reviewing available information about a known or suspected hazardous waste site or release.

**Proposed Remedial Action Plan (PRAP)**: A document that reviews the cleanup alternatives presented in the site FS and identifies ADEQ's preferred alternative. Selection of a preferred alternative is not a closed-end commitment to use that alternative; rather, it is a way for the agency to indicate, based on experience and expertise, which alternative is the most likely course of action. ADEQ must actively solicit public review of and comment on all the alternatives under consideration.

**Public Comment Period**: A period during which the public can formally review and comment on various documents and ADEQ actions.

**Record of Decision (ROD)**: A legal document that announces and explains the cleanup methods ADEQ will use at a WQARF site. The ROD is based on information and technical analysis generated during the Remedial Investigation and Feasibility Study, and on consideration of comments received during the public comment period for the PRAP.

**Remedial Action (RA)**: Any action taken to investigate, monitor, assess and evaluate the release or threat of release of hazardous substances or contaminants to the environment. It may also refer to the actual "cleanup" of the environment by various removal, treatment, monitored remediation, or corrective actions. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, remedy, remediation, or corrective action.

**Remedial Investigation (RI)**: Establishes the nature and extent of the contamination and the sources; identifies current and potential impacts to public health, welfare, and the environment; identifies current and reasonable foreseeable uses of land and waters of the state; and obtains and evaluates any information necessary for identification and comparison of alternative remedial actions.

**Remedial Objective (RO)**: Established remedial goals for the current and reasonably foreseeable uses of lands and waters of the state that have been or are threatened to be affected by a release of hazardous substance.

**Remediation**: Cleanup or other methods used to remove or contain a toxic spill or hazardous materials.

**Remedy**: Cleanup method chosen for a site.

**Responsible Party**: An individual or company (*e.g.*, an owner, transporter, or generator of hazardous waste) that is responsible for the contamination at a WQARF site. Whenever possible, responsible parties are required to clean up hazardous waste sites they have contaminated.

**Responsiveness Summary**: A summary of oral and written comments (and ADEQ responses to those comments) received during the public comment period.

**Salt River Project (SRP):** Salt River Project is the oldest multipurpose federal reclamation project in the United States and has been serving Arizona since 1903. Salt River Project's water business is one of the largest raw-water suppliers in Arizona, delivering about 800,000 acre-feet of water annually to a 375-square-mile service area. Salt River Project manages a 13,000-square-mile watershed that includes an extensive system of reservoirs, wells, canals, and irrigation laterals.

**Soil Remediation Level (SRL):** A pre-determined risk-based standard protective for residential or non-residential use based upon the total contaminant concentration in soil. In addition to meeting the SRLs, it must also be shown that soil contaminant levels do not: 1) Cause or threaten to cause a violation of Water Quality Standards that are protective of aquifer water quality and surface water quality; 2) Exhibit a hazardous waste characteristic of ignitability, corrosivity, or reactivity; and 3) Cause or threaten to cause an adverse impact to ecological receptors. SRLs have replaced what were known as Health-Based Guidance Levels or HBGLs.

**Soil Vapor Extraction (SVE):** Soil vapor extraction removes contaminant vapors from below ground for treatment above ground. SVE systems remove vapors from the soil above the water table by applying a vacuum. The method is used for chemicals that evaporate easily – such as those found in solvents and gasoline.

**Superfund**: The program operated under the legislative authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) that funds and carries out U.S. Environmental Protection Agency solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. It provides for the cleanup of hazardous substances released into the environment, regardless of fault. The term Superfund is also used to refer to cleanup programs designed and conducted under CERCLA and its subsequent amendments.

**Tetrachloroethene or Tetrachloroethylene or Perchloroethene** (PCE): A clear, colorless, liquid with a chloroform or sweet odor and a low boiling point; a solvent used for dry cleaning; degreasing and drying metals and other solids; dissolving waxes, greases, oils, fats, and gums; and in other industrial applications. PCE is a potential occupational carcinogen. Evaporation of PCE increases as temperature increases.

**Total Petroleum Hydrocarbons (TPH)**: Total petroleum hydrocarbons refer to a measure of concentration or total mass of petroleum hydrocarbon constituents present in a given amount of air, soil or water.

**Trichloroethene or Tetrachloroethylene** (TCE): A colorless liquid used as a solvent, metal degreasing agent, and in other industrial applications.

**Vinyl Chloride:** A colorless compound used in aerosol spray propellant, furniture and automobile upholstery, wall coverings, housewares, automotive parts, and as a refrigerant. It is a chemical intermediate, not a final product.

**Volatile Organic Compounds (VOC)**: A large group of carbon-containing compounds that are easily dissolved into water, soil, or the atmosphere and evaporate readily at room temperature. Examples of VOCs include PCE, TCE, benzene, toluene, ethylbenzene, and xylene. These contaminants are typically generated from metal degreasing, printed circuit board cleaning, gasoline, and wood preserving processes.

Water Quality Assurance Revolving Fund (WQARF): Also known as the State Superfund. WQARF is the program and funding that is used to address hazardous substance releases within the state that are not covered by other specific programs.